

WHAT IS CLAIMED IS:

1. A reflection-type liquid crystal display device, which comprises a pair of substrates, at least one of which is transparent, a liquid crystal layer sandwiched between the pair of substrates, and a light reflector section provided between the liquid crystal layer and one of the pair of substrates, said light reflector section including a polymeric medium layer with fine silver particles precipitated on the surface.
2. A reflector-type liquid crystal display device according to Claim 1, wherein the polymeric medium is composed of a silver-containing polyimide, the polyimide containing the fine silver particles formed by reduction of monovalent silver.
3. A reflection-type liquid crystal display device according to Claim 1, wherein the surface of the polymeric medium at the light reflector section controls orientation of liquid crystal molecules in the liquid crystal layer.
4. A reflection-type liquid crystal display device according to Claim 1, wherein an electrode layer is further formed on one of the substrates, and the light reflector section is provided between the electrode layer and the liquid crystal layer.
5. A reflection-type liquid crystal display device according to Claim 1, wherein a color filter is further provided between the light reflector section and the liquid crystal layer.

6. A reflection-type liquid crystal display device according to Claim 1, wherein a color filter is further provided between the substrate confronted with the substrate with the light reflector section as formed thereon and the liquid crystal layer.

7. A reflection-type liquid crystal display device according to Claim 1, wherein the light reflector section has a light reflector layer formed from a silver-containing photosensitive polymeric medium according to a photolithographic process, and the light reflector layer contains the fine silver particles so precipitated as to give electrical conduction through their mutual contact.

8. A reflection-type liquid crystal display device according to Claim 7, wherein the photosensitive polymeric medium contains 12 to 50% by weight of silver.

9. A reflection type liquid crystal display device according to Claim 7 or 8, wherein the light reflector layer acts also as an electrode for applying a voltage to the liquid crystal layer.

10. A reflection-type liquid crystal display device according to any one of Claims 1, 7 and 8, where a scattering layer for scattering the light reflected at the light reflector section is further provided.

11. A reflection-type liquid crystal display device according to anyone of Claims 1, 7 and 8, wherein the polymeric medium at the light reflector section contains fine non-conductive particles which give a light scaterability to the surface of the polymeric medium.

12. A reflection-type liquid crystal display device according to Claim 11, wherein a plurality of asperities having a diameter of about 10 μm and a height of about 1 μm are formed by the fine non-conductive particles on the surface of the polymeric medium layer with the precipitated fine silver particles.

13. A reflection-type liquid crystal display device according to Claim 7 or 8, wherein the photosensitive polymeric medium includes a photosensitive polyimide.

14. A reflection-type liquid crystal display device according to Claim 7 or 8, wherein the fine silver particles are precipitates formed by heating the photosensitive polymeric medium to a predetermined temperature, thereby reducing monovalent silver contained in the medium.

15. A reflection-type liquid crystal display device according to Claim 7, wherein a color filter is further provided between the substrate confronted with the substrate with the light reflector section as formed thereon and the liquid crystal layer.

16. A reflection-type liquid crystal display device according to Claim 9, wherein a wiring layer for actuating the electrode is further provided and an electro-conductive path for giving an electrical connection between the wiring layer and the electrode is formed at the light reflector section.

17. A reflection-type liquid crystal display device according to Claim 9, wherein a wiring layer for

actuating the electrode and an insulating layer for giving insulation between the wiring layer and the electrode are provided.

at AD 18. A process for producing a reflection-type liquid crystal display device, which comprises steps of:

- applying a mixture containing monovalent silver and a photosensitive polymeric medium to a substrate;
- exposing the mixture to light, thereby photolithographically forming a light reflector layer of desired pattern;
- heating the light reflector layer under a predetermined temperature condition, thereby precipitating fine silver particles on the surface of the light reflector layer; and
- confronting a transparent substrate with said substrate on which the light reflector layer is formed, and sandwiching a liquid crystal layer between the substrates.

19. A process for producing a reflection-type liquid display device, which comprises steps of:

- forming an electrode for actuating liquid crystals on a substrate;
- forming an insulating layer on the electrode;
- applying a mixture containing monovalent silver and a photosensitive polymeric medium on the insulating layer;
- exposing the mixture to light, thereby photolithographically forming a light reflector layer of

desired pattern;

heating the light reflector layer under a predetermined temperature condition, thereby precipitating fine silver particles on the surface of the light reflector layer; and

confronting a transparent substrate with said substrate on which the light reflector layer is formed, and sandwiching a liquid crystal layer between the substrates.

20. A process according to Claim 18 or 19, wherein the surface of the polymeric medium in the light reflector layer controls orientation of liquid crystal molecules in the liquid crystal layer.

21. A process according to Claim 18 or 19, wherein the fine silver particles precipitated on the surface of the light reflector layer give an electrical conduction through their mutual contact.

22. A process according to Claim 21, wherein the photosensitive polymer medium contains 12 to 50% by weight of silver.

23. A process according to Claim 21, wherein the light reflector layer acts also as an electrode for applying a voltage to the liquid crystal layer, and the desired pattern is a pattern of the electrode.

24. A process according to Claim 18 or 19, which further comprises a step of forming a light-scattering layer for scattering the light reflected on the light reflector layer.

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25. A process according to Claim 20, which further comprises a step of forming a light-scattering layer for scattering the light reflected on the light reflector layer.

26. A process according to Claim 18 or 19, wherein the polymeric medium contains fine non-conductive particles for giving a light scatterability to the surface of the light reflector layer.

27. A process according to Claim 24, which further comprises a step of forming a wiring layer for actuating the electrode on the substrate, and a step of forming an electro-conductive path for giving an electrical connection between the wiring layer and the electrode through the light reflector layer.

28. A process according to Claim 24, which further comprises a step of forming a wiring layer for actuating the electrode on the light reflector layer and a step of forming an insulating layer for giving insulating between the wiring layer and the electrode.